

You probably have frequent opportunities of sending to New York. A package for me may be left in charge of my friend *Franklin Brown*, Esqr. 27. *Beekman St.* who will have frequent opportunities of forwarding it to me during the months of April & May.—

I will send to you, unless you otherwise order, through the Revd. Mr. Van Vleck. With many thanks for your kindness and good wishes I remain

Dear Sir

Yours very respectfully

Asa Gray.

P. S. Your letter was directed to me as the Revd. A. Gray which was probably a "lapsus pennae," and was the reason why it was mislaid at the Post office and did not reach me in due season. Tho' not in practice I belong to the medical profession.

A. G.

THE YELLOW-FRUITED VARIETY OF THE BLACK RASPBERRY.

W. H. BLANCHARD.

THE interesting yellow-fruited form of *Rubus occidentalis*, L. was well known to our horticulturists long before our botanists knew it, as were several species of blackberries and the hybrid raspberries. Beyond the few very recent specimens mentioned below I have not been able to learn of it in any herbarium.

The first mention I can find of it was in 1833, when William Kenrick,¹ after naming varieties of *Rubus Idaeus*, L., then in cultivation, speaks of the "Black American Raspberry" and "White American Raspberry" as being "quite distinct from the above." I have not searched agricultural and horticultural periodicals but have examined all the books I could find bearing on the subject. It is next mentioned in 1845 by A. J. Downing.² Having noticed the "American Black Raspberry" he mentions this. "The American

¹ New American Orchardist, Boston, 1833, Ed. 1, p. 342.

² Fruit and Fruit Trees of America, N. Y., 1845, Ed. 1, p. 516.

White resembles the foregoing in all respects except the color of its fruit which is pale yellow or white." In 1867, Dr. Asa Gray¹ in describing *Rubus occidentalis* says: "Fruit purple-black (rarely a whitish variety)."

In 1867, also, Andrew S. Fuller² wrote of it the only good account I have found, and it is well worth being recorded in a botanical journal.

"AMERICAN WHITE CAP. *Yellow Cap, Golden Cap.* Fruit one-half to five-eighths of an inch broad, slightly oval; grains larger than in the preceding variety (American Black Raspberry); pale or deep yellow, covered with a white bloom; sweet, juicy, rather musky, but agreeable; canes light yellow, slightly glaucous; only moderately productive. This variety is also found wild from Maine to the Mississippi River and probably further west. I have received it from nearly all the Northern states and from the southern portion of the State of Delaware. It is seldom found in any great number, and this is probably one reason why so many people have supposed they had discovered something new when they had accidentally found one of these plants growing wild. Nearly every season I receive letters from different parts of the country, describing a new and remarkable wild variety of white raspberry, but when the plants are received they have invariably proved to be this variety. The habit of the plant is as good as could be desired, producing no suckers, but propagating from the tips of the young canes."³

Prof. L. H. Bailey⁴ in 1898 closed his description of *R. occidentalis* with a brief account of this plant. "Amber-fruited forms of the black cap are occasionally found in wild areas." And in 1902 in his latest contribution on this genus⁵ he advances a step. "VAR PALLIDUS has amber-yellow fruit, sometimes found in the wild." So at last this variety has received a botanical name; but, as *pallidus* has already been used at least twice in this genus the writer proposes a new name.

This amber-fruited plant seems to be a good variety but a variety

¹ Manual, Ed. 5, 1867, p. 157.

² Small Fruit Culturist, N. Y., 1867, Ed. 1, p. 142.

³ Note that Mr. Fuller did not call them *sterile* canes.

⁴ Evolution of our Native Fruits, N. Y., 1898, p. 289.

⁵ Cyclopaedia Am. Hort., N. Y., 1902, Vol. 4, p. 1582.

only. It is very distinct from the western *R. leucodermis*, Douglass which is at best a very weak species. Having examined a good deal of herbarium material and read several accounts of this western plant by those who have seen or known it in its native haunts, I think Card's¹ disposition of it is correct and quote Bailey's² description of it which may be compared with Fuller's description of the yellow-fruited form. "Var. LEUCODERMIS, Card (*R. leucodermis*, Douglass). Leaflets more coarsely serrate-dentate, sometimes nearly incise-serrate, the prickles strong and more hooked: fruit reddish black or black. Rocky Mts. and West."

Card³ gives thirteen horticultural varieties of the Yellow Cap most of them being taken from Crozier's list.⁴ Most of them were wildlings. The cultivated forms have never proved to be as fruitful nor as fine-flavored as some of the Black Caps and few are in cultivation at present. I have found a few people who have seen it wild. The writer found it July 19, 1902, on the farm of Mr. Joseph Farwell near Amsden in Weathersfield, Vermont, about two miles southwest of Mt. Ascutney. It was well spread over an acre or more in the road, in mowing and pasture. Inquiry proved that it had been well known to the owner of the farm from the beginning of his occupancy of thirty years, and there was no reason to believe that it was ever cultivated in that section. Specimens are in the Gray Herbarium and that of the New Jersey Botanical Garden. It is interesting here to note that Mr. O. P. Fullam, now of Westminster, Vermont, found it on Hawk Mt. about seven miles southwest of my Amsden station about thirty years ago.

Mr. L. P. Sprague of Burlington, Vermont, found it in Burlington in 1901 in a place that led him to suspect that it probably grew from a seed dropped by a bird. Mr. L. R. Taft now Horticulturist at the Michigan Agricultural College reports that he has found it in several places in Massachusetts and Michigan,—single plants which suggested to him a similar origin. Prof. C. H. Peck, State Botanist of New York found an isolated specimen in 1902 in the road near Albia, Rensselaer Co., New York, a specimen of which is preserved.⁵

¹ Card, Bush Fruits, N. Y., 1898, p. 319.

² Cyclopaedia Am. Hort., N. Y., 1902, Vol. 4, p. 1582.

³ Bush Fruits, pp. 161-176.

⁴ Crozier, Bull. 111, Mich. Exp. Sta.

⁵ N. Y. State Museum Bul. 67, May 1903, p. 32.

RUBUS OCCIDENTALIS, L., var. *flavobaccus*, n. nom. Var. *pallidus*, Bailey, *White American Raspberry*, Kenrick, *Yellow Cap*, *White Cap*, *Golden Cap*, *Summit*, etc., of horticulturists.— Differs from the species in having pale yellow, light yellow or amber-yellow fruit. From Maine to the Mississippi River, Delaware and Kentucky. Known to horticulturists previous to 1833. Occasional throughout.

WESTMINSTER, VERMONT.

THE GENUS ARNICA IN NORTHEASTERN AMERICA.

M. L. FERNALD.

Arnica is a genus of mostly high-northern and montane plants reaching its greatest development in the mountains of western North America. There the species are perplexingly numerous: but in the eastern portion of the continent only three species have been generally recognized,— the unique *A. nudicaulis* of the southern coast, the familiar plant of northern New England and adjacent Canada which has passed as *A. Chamissonis*, and the Labrador *A. alpina*. Several recent collections in northern New England, eastern Canada, and Labrador, show that we have on our mountains and northern river banks a greater development of the genus than has been imagined. Owing to the established conviction that one uniform species extends from the Gulf of St. Lawrence to the White Mountains, the Adirondacks, and Lake Superior, the available collections of the genus are very inadequate; and doubtless many other species will be found, especially on the mountains and cliffs of eastern Quebec. The following synopsis of the northeastern species, so far as yet known may serve as a basis for further study of these attractive plants.

* Basal leaves tapering to the petiole.

+ Leaves entire or with few irregular scattered teeth.

++ Stem pubescent throughout.

= Involucre, conspicuously villous-lanate at base.

A. ALPINA, Olin & Ladan. Stem 0.5–2.3 dm. high, sparingly villous below, densely so above, copiously villous-lanate at tip: leaves